

Scientific Note

**OCCURRENCE OF TWO MARINE MIDGES  
*PONTOMYIA* SPP. (DIPTERA: CHIRONOMIDAE)  
IN TAIWAN**

*Pontomyia* midges exhibit morphological adaptation to marine environment and are exclusively marine (Tokunaga, M. 1932. Mem. Coll. Agric. Kyoto Imp. Univ., 19: 1–56). Four species have been described in this genus which was designated by Edwards (Edwards, F. W. 1926. Proc. Zool. Soc. Lond., 51: 779–806). *Pontomyia* species are mainly distributed among the archipelago, 43° N to 39° S in the western Pacific with records of most species from Japan, Australia, and some Pacific islands (such as Samoa and Palau, and *P. pacifica* Tokunaga from Singapore), but no *Pontomyia* sp. has been recorded from Taiwan and the neighbouring regions (Cheng, L. & H. Hashimoto. 1978. Syst. Entomol., 3: 189–196). We report *P. oceana* Tokunaga and *P. natans* Edwards from Taiwan in this paper.

We witnessed the mass emergence of *P. oceana* imagoes on the evening on 20 Nov 1991. Male imagoes skimmed on the sea-water surface at ca. 2 m/sec searching for females. They moved quickly during copulation and looked like a web on the water surface. The larvae and pupae of *P. oceana* nest on rocks or polychaete tubes to a depth of 10 meters. They feed on detritus, and use detritus and sand particles to build tubes in laboratory culture. In Kenting, South Taiwan, we observed *in situ* the pelagic atherinid fish (*Allanetta bleekeri* Gunther) and the marine water-strider (*Halovelis septentrionalis* Esaki) preying on the imagoes as they emerged. There are only two previous records of *P. oceana* from Palau (7°30' N, 134°35' E) (Tokunaga, H. 1964. Micronesia, 12: 485–628) and Australia (23°27' S, 151°55' E) (Marks, E. N. 1971. Aust. Natur. His., 17: 134–138). Our observations expand its range. The latitude of Taiwan localities is likely similar to that for the Australian record and may represent the boundaries of *P. oceana* distribution; perhaps related to the lower temperature limit for embryonic development (ca. 13° C: Chen, G. F. 1993. Master Thesis, Nat. Sun Yat-sen Univ).

One male *P. natans* imago was trapped at night at Lanyu Island on 5 Apr 1992. We certified a mass emergence of only male *P. natans* from southern Taiwan in July, 1992; female imagoes are unknown. Apparently, *P. natans* has a different mating strategy than *P. oceana*. *Pontomyia natans* has been reported from Japan and Australia (Cheng, L. & H. Hashimoto. 1978. Syst. Entomol. 3: 189–196). The presence of *P. natans* in Taiwan expands its distribution in the western Pacific.

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*Material Examined.* — ROC. TAIWAN. PINGTUNG Co.: Wanlitung Village (21°59' N, 121°41' E) and Howan Village (22°02' N, 121°41' E), 20 Nov 1991, J. D. Lee, *P. oceana*, 10 males, 5 females; TAITUNG Co.: Lanyu Island (22°03' N, 121°30' E), 5 Apr 1992, J. D. Lee, *P. natans*, 1 male; PINGTUNG Co.: Wanlitung Village (21°59' N, 121°41' E), 15 July 1993, G. F. Chen, *P. natans*, 20 males.

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